

**PLASTIC LENS HAVING DIMMING PROPERTY**

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**Abstract**

**PURPOSE:** To improve the resistance to wear, impact, weather and chemicals and the response speed of dimming by providing a primer layer consisting of thermosetting type polyurethane contg. a photochromic material on the surface of a lens base material and further providing a hard coat layer consisting of a silicone resin.

**CONSTITUTION:** A coating material for a primer essentially consisting of block type polyisocyanate and polyol and further, contg. the photochromic material is applied on a lens and is cured by heating in order to form a primer layer. Oxazine photochromic materials, such as spirophtotooxazine, 5-chlorospironaphotooxazine and spirophtenanthrooxazine, are included as the examples of the photochromic material. The hard coat layer consisting of the silicone resin is provided on this polyurethane primer layer. The rate of the reaction of the photochromic material when the layer is irradiated with light is increased in this way and the response speed of dimming is increased. In addition, the deterioration of the photochromic material by oxidation is lessened.

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